

# *2/4 CHANGE*

## **Technical Guide** May 1996



ADDRESS MANAGEMENT  
NATIONAL CUSTOMER SUPPORT CENTER  
UNITED STATES POSTAL SERVICE  
6060 PRIMACY PKWY STE 201  
MEMPHIS TN 38188-0001  
(800) 238-3150

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## Background

The United States Postal Service, in cooperation with the mailing industry, designed the ZIP+4 Change (Z4CHANGE) product to facilitate the process of updating customers' computer mailing lists for automation compatibility and improved deliverability. This joint effort promotes the Industry/United States Postal Service Worksharing Task Force goal of increased automation.

Current USPS regulations require that all customer address lists be processed annually by Coding Accuracy Support System- (CASS) certified address-matching software. However, to enhance deliverability, the United States Postal Service recommends that customers reprocess their address lists more frequently using CASS-certified software. CASS-certified software applies the correct ZIP+4/delivery point, 5-digit ZIP, and/or carrier route codes and standardizes the delivery address, city, and state field elements.

Reprocessing every address record can be both costly and time-consuming. Z4CHANGE was developed in response to customers who wanted a cost-effective method to improve the deliverability of their mail by using the most current ZIP+4/delivery point information. Z4CHANGE helps customers accomplish this goal by providing them with data that indicates which ZIP+4 Codes have had any transactions in the past twelve months. When a high-rise (H record) or a firm (F record) is added, this product also shows a transaction for the supporting street ZIP+4 Code, which allows the customer the opportunity to upgrade the previously coded street-level matches. Customers must then develop their own software to access Z4CHANGE to determine which records on their address list need to be reprocessed by CASS-certified software. As a result, only the records that have had transactions will need to be reprocessed, which can be done on a monthly or quarterly basis.

Using Z4CHANGE and becoming Z4CHANGE certified eliminates the need to reprocess an entire address list every year by providing a method of maintaining continuous qualification for the discounted automation rates. As a Z4CHANGE user, the customers' address files are maintained in compliance with Postal Service regulations, i.e., maintenance of current updates and proper use of the product.

If the USPS determines that a significant change has been made in the CASS requirements, customers will be required to reprocess their entire address list. Otherwise, it will be necessary that customers reprocess their entire file at the end of the third year following Z4CHANGE certification.

## Benefits

Z4CHANGE offers you, the mailing customer, the following benefits:

- Reduces your costs in meeting automation-based requirements by reducing the time and expense of reprocessing your address file
- Eliminates your responsibility to meet the requirement of the *Domestic Mail Manual* (DMM) for matching address lists with current CASS-certified software within one year of the date of mailing
- Allows you to process your address files more frequently, thus producing an address list that is current to within 45 days (on the average) if you process quarterly or to within 180 days if you process annually

- Enhances your competitiveness in the marketplace by improving the deliverability of your mail and adding to the promptness of mail delivery.

## General Information

To use the Z4CHANGE product, it is vital that you know the cycle date of the ZIP+4 database used the *previous* time you processed your address list with CASS-certified software. You must also know the cycle date of the ZIP+4 database you are using for your current reprocessing. Your CASS-certified software vendor should be able to provide this information.

The Z4CHANGE product is offered in either a quarterly or monthly update cycle. Therefore, you must know the update cycle for your CASS-certified software vendor. Generally, if you receive monthly updates of the ZIP+4 database from your CASS-certified software vendor, you need to subscribe to the monthly installment of Z4CHANGE even if you are only matching quarterly.

When you have established the correct cycle date of your ZIP+4 database, be sure to load the Z4CHANGE product that corresponds to the same cycle date. You must then calculate the difference in months between the ZIP+4 database you used the last time you processed your address list and the one you are currently using. For example, if you are processing quarterly and your vendor uses quarterly update cycles, this number should be three.

To use the Z4CHANGE product, you must develop your own Z4CHANGE file access software. Refer to the sample COBOL source code included in this document for guidance. In addition, you must obtain certification for your Z4CHANGE software to take advantage of the continuous qualification for the automation postage rates. However, you do not have to be certified to purchase or use the Z4CHANGE product.

Z4CHANGE certification test includes two test files consisting of ZIP+4 records marked *Stage I* and *Stage II*, respectively. To ensure that you have correctly installed the product and correctly implemented your Z4CHANGE software, you should process the Stage I test file and compare your answers to the answers provided.

After completing Stage I, process the Stage II test file and return it to the National Customer Support Center (NCSC) for grading. Please refer to the section in this document on Z4CHANGE certification for more details.

## File Description

Each record in the Z4CHANGE product contains 21 bytes. The first 9 bytes represent a valid ZIP+4 Code. The remaining 12 bytes are flags for each month indicating whether a ZIP+4 Code has had any type of transaction (add or delete) and the month that the transaction occurred.

Each flag is set either to "N" to indicate the ZIP+4 Code had no transactions for the month or "Y" to indicate the ZIP+4 Code had transactions for the month. The first flag represents the current month. For example, if the current Z4CHANGE cycle is November, then the first flag represents November, the second flag represents October and the third flag represents September, etc.

Figure 1 uses ZIP+4 Code 38018-7740 to illustrate that the second flag is set to "Y," indicating that the ZIP+4 Code changed in October.

<b>Current month</b>	November											
<b>ZIP+4 Code</b>	38018-7740											
<b>38018-7740</b>	November	October	September	August	July	June	May	April	March	February	January	December
	N	Y	N	N	N	N	N	N	N	N	N	N

**ZIP+4 Code 38018-7740 had a transaction in October**

**Figure 1**—ZIP+4 Code Transaction in October

After you have developed your Z4CHANGE software and installed the test Z4CHANGE product provided, you must qualify your Z4CHANGE process by certification.

### Stage I

A Stage I file similar to the Stage I file used in CASS certification has been developed for Z4CHANGE software. Stage I is a “test with answers,” and its purpose is to enable you to compare your answers to those provided. This evaluation will assist with software debugging in preparation for Stage II. The Stage I file consists of ZIP+4 records with a flag indicating whether the ZIP+4 record has experienced a change. The flag contains a “Y” to indicate that a change has occurred or an “N” to indicate that no change has occurred.

### Stage II

Stage II is a “test without answers.” The Stage II file consists of ZIP+4 records. Your Z4CHANGE software must process each ZIP+4 record, compare each to the Z4CHANGE file, and return a “Y” or “N” in the answer field to indicate whether the ZIP+4 Code has experienced a change.

### Processing the Stage II File

Process the original Z4CHANGE Stage II product file through your Z4CHANGE software. Your software must be able to evaluate the Stage II file data and determine whether a change has occurred to the ZIP+4 records during the previous five months. Stage II requires a 100% match rate. If the original Z4CHANGE Stage II file cannot be completely processed, you must order a new one.

When you have completed processing the Z4CHANGE Stage II file, please return it to the following address along with your customer ID number, name, company name, address, and telephone number:

**Z4CHANGE CERTIFICATION**

NATIONAL CUSTOMER SUPPORT CENTER  
UNITED STATES POSTAL SERVICE  
6060 PRIMACY PKWY STE 101  
MEMPHIS TN 38188-0001

### Certification

When the required level of accuracy (100%) is achieved for the Z4CHANGE software, you become certified. Certification consists of issuing an official notification letter, Z4CHANGE certificate, and inclusion of your company's name in a list of certified companies (which you may order from the Customer Support Department at the NCSC). We will send you an AIS Product pricing sheet and an order form for the Z4CHANGE product with your letter of notification and Z4CHANGE certification.

Upon certification, it is necessary that you process your entire file using CASS-certified software and produce a Form 3553. At the time of mail acceptance, you will be required to write in Section A1, next to the software configuration, the word *Z4CHANGE*. This new Form 3553 remains valid for three years providing you remain a Z4CHANGE customer. A copy of Form 3553 must be sent to the NCSC to be placed in your audit file.

To remain a Z4CHANGE customer, you are subject to at least one unannounced audit of your address files by the USPS. It is also required that all additions and changes to your files be processed through CASS-certified software.

**Note:** *If the USPS determines that a significant change has been made in the CASS certification process, you will be required to reprocess your entire address file and produce a new form 3553. Otherwise, it will be necessary for you to reprocess your entire file at the end of the third year following the date of your Z4CHANGE certification.*

## Using Z4CHANGE

To use the Z4CHANGE product, you must know the cycle date of the ZIP+4 database used for address matching. You must also know the cycle date of the current Z4CHANGE product. To determine the number of months since the last address-matching cycle, check the ZIP+4 Code. If any flags have been set to "Y" during that time frame, reprocess the address through CASS-certified software.

For example, if the current Z4CHANGE product is November, the first flag is November and the last flag is December of the previous year. Assume that the last address-matching cycle used the March ZIP+4 database. Find the appropriate ZIP+4 Code. In the example, the ZIP+4 Code is 12345-0009. Figure 2 indicates that a change has occurred to the ZIP+4 Code since March. Therefore, this address requires processing through CASS-certified software.

Current Month	November											
ZIP+4 Code	ZIP+4 Database											
12345-0009	November	October	September	August	July	June	May	April	March	February	January	December
	N	N	N	Y	N	N	N	N	N	N	N	N

**Figure 2**—Address Requiring Reprocessing

Figure 3 focuses on the ZIP+4 Code 12345-0100, in which no changes occurred. This address *does not* require processing through CASS-certified software.

Current Month	November											
ZIP+4 Code												
12345-0100	November	October	September	August	July	June	May	April	March	February	January	December
	N	N	N	N	N	N	N	N	N	N	N	N

**Figure 3**—Address Not Requiring Reprocessing

## Z4CHANGE File Format

Z4CHANGE is available in one tape format and one cartridge format. The options are described below:

### Available Tape and Cartridge Configurations

Format	Recording Technique	Attributes	Density	Label Option
D	9-track	EBDIC	6250	No labels
E	Cartridge	IBM 3480	38K	No labels

Z4CHANGE consists of approximately 10 reels of tape at 6250 BPI or 8 cartridges at 38K BPI

*Note: The number of cartridges or tapes depends upon the number of transactions.*

Tapes and cartridges are available in only one block size. Data set attributes include the following:

Attributes	
Record Length	= 21 Characters
Block Size	= 32760 Characters
Records per block	= 1560 Records

Z4CHANGE Product ID Summary	
Z4CHANGE Base Monthly Product ID	ZC215T—Tape ZC215C—Cartridge
Z4CHANGE Base Quarterly Product ID	ZC205T—Tape ZC205C—Cartridge
Z4CHANGE Technical Guide Product ID	ZC250D—Documentation



## File Layout

Header Record, COBOL Example			
01	COPYRIGHT-RECORD.		
05	FILLER	PIC X(03).	001 – 003
05	COPYRIGHT	PIC X(07) VALUE '(C) USPS'.	004 – 010
05	FILLER	PIC X(02).	011 – 012
05	FILE-YEAR	PIC X(02).	013 – 014
05	FILE-MONTH	PIC X(02).	015 – 016
05	FILE-DAY	PIC X(02).	017 – 018
05	FILLER	PIC X(03).	019 – 021

  

Detail Record, COBOL Example			
01	Z4CHANGE-RECORD.		
05	ZIP9.		
10	ZIP5	PIC X(05).	001 – 005
10	ZIP4	PIC X(04).	006 – 009
05	MONTH-SWITCHES.		010 – 021
10	MONTH		
	OCCURS 12 TIMES	PIC X(01).	

## Test File Format

The Z4CHANGE Stage I and Stage II file products are available in two non-labeled tape formats and one cartridge format and two diskette formats.

### Tape and Cartridge Configuration Options

Format	Recording Technique	Character Set	Label Density	Option
A	9-track	EBCDIC	6250 BPI	No labels
B	9-track	ASCII	6250 BPI	No labels
E	Cartridge	EBCDIC	38K	No labels
G	5 1/4	ASCII		MS-DOS
H	3 1/2	ASCII		MS-DOS

Attributes			
Record length	=	20	Characters
Block Size	=	32760	Characters
Records Per Block	=	1638	Records

Each record consists of a 9-digit ZIP+4 Code followed by a one-character answer. A header record does not exist in this file.

### Record Layout

Field Sequence Number	Field Description	Logical Length	Relative Position	
			From	Thru
1	CUSTOMER ID	09	001	009
2	ZIP- CODE	05	010	014
3	ADD-ON-CODE	04	015	018
4	ANSWER	01	019	019
5	FILLER	01	020	020

# Z4CHANGE CERTIFICATION ORDER FORM

## Customer Information (Required)

Attention: \_\_\_\_\_

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP+4: \_\_\_\_\_

Phone: ( \_\_\_\_ ) \_\_\_\_\_ Fax Number: ( \_\_\_\_ ) \_\_\_\_\_

## Mailing Information (if different from above)

Attention: \_\_\_\_\_

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP+4: \_\_\_\_\_

Phone: ( \_\_\_\_ ) \_\_\_\_\_ Fax Number: ( \_\_\_\_ ) \_\_\_\_\_

## Please maintain my Certification in Postal Service documents and records as:

☐ Integrator/Manufacturer

☐ Service Bureau

☐ User

☐ NCOA Licensee

☐ DSF Licensee

☐ I do not wish to appear in  
any USPS publications

## I am applying for:

☐ Vendor Certification (Software/Hardware Manufacturer)

☐ User-Defined Certification

I hereby certify that all information furnished on this application is accurate. I further certify that the responses provided on the Z4CHANGE Stage II certification file/test will be obtained using the same software used in the processing of the Z4CHANGE Product. The Z4CHANGE Stage II file/test will be processed in-house with company-owned or leased software.

Company Official Signature *(Required)*

\_\_\_\_\_  
*Name (please print)*

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Date*

## NCSC Use Only

Customer #: \_\_\_\_\_

Date: \_\_\_\_\_

PRDT Code: \_\_\_\_\_